## MANUFACTURING EXTENSION PARTNERSHIP Success Stories from the Field

### Kenmore Envelope Co. Inc.

Virginia's A.L. Philpott Manufacturing Extension Partnership

Kenmore Envelope Gains Significantly From Constraints Management and Lean

#### **Client Profile:**

Kenmore Envelope Company, Inc., was founded in 1969 and currently employs 85 workers at the Richmond, Virginia, facility. Kenmore converts large, medium and small envelopes from all papers, with special windows. They offer large format offset sheet fed, jet press and enhanced flexo printing. Capabilities include digital pre-press, die cutting and folding.

#### Situation:

With the recent economic downturn, Kenmore had experienced several years of flat sales and declining profits. Consolidations of regional financial institutions had resulted in the loss of several large accounts. Steep seasonality was an annual challenge with several months of excess capacity resulting from slow demand, followed by a busy season that was often chaotic. Like most businesses, competitive pressures in the market presented pricing challenges. In early 2002, Kenmore was referred to Virginia's A.L. Phiopott Manufacturing Extension Partnership (VPMEP), NIST MEP network affiliate, Project Manager, John Hudson, by a private-sector consultant that knew of VPMEP's expertise in Constraints Management and Lean. Kenmore's president spoke to another company CEO who provided a positive reference, based on their work with VPMEP and Owen Kingman, one of their private-sector providers.

#### Solution:

Kenmore's CEO agreed with VPMEP's recommendation to use an intervention team of experienced Constraints Management and Lean experts, including Mr. Kingman, and appropriate VPMEP project managers. The team provided all employees with a one-day educational overview that demonstrated the principles of Lean Enterprise and Constraints Management. Three sessions of this High-Impact Lean and Constraints Management workshop were delivered, with 20 Kenmore employees per event. To gain control of operations, the VPMEP intervention team helped Kenmore establish a new scheduling approach that focused on the constrained resources, with rules to protect the schedule. The logistics of purchasing were improved, resulting in a significant reduction in paper inventory. A Total Productive Maintenance (TPM) program was instituted, including scheduled preventive maintenance. This improved productivity of the constraints and manufacturing by over 20 percent. An enhanced pricing strategy was developed that calculated the Total Variable Cost (TVC) and Throughput dollars for all quotes and orders. Octane or Throughput dollars per constraint hour was determined for the primary types of jobs in the product mix. The new strategy strives to maximize octane, especially when operations are fully loaded. This strategy was implemented with noteworthy success by a new sales professional and other members of the sales team.

#### Results:



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- \* Increased annual sales by 20 to 25 percent.
- \* Improved profitability.
- \* Created 27 new full-time jobs.

#### **Testimonial:**

"Kenmore's on-going relationship with VPMEP has helped to strategically direct our sales efforts in a better manner and to gain more leverage in the control of internal operations by focusing management on our capacity-constrained resources."

Rhett Riddle, President

